

STUDIES IN THE EUPATORIEAE (ASTERACEAE). CXCv.

A NEW GENUS *CAVALCANTIA*.

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Botanical exploration has been very limited in the outlying savanna areas along the southern fringe of the Amazon Basin in Brasil. Nevertheless, two endemic genera of the Eupatorieae are already known from these areas, *Monogereion* Barroso and King (1971) and *Parapiqueria* King and Robinson (1980). A third genus is now evident which contains two species from two different areas in southern Pará, the Serra dos Carajás and the Serra do Cachimbo, two areas separated by nearly 500 km. The genus provides the first evidence of an endemic floristic element in the Asteraceae shared by two such areas.

The Serra dos Carajás species was first described as an *Ageratum* (Barroso & King, 1971) on the basis of a broader interpretation of that genus. The discovery of a second species clearly indicates that a separate element is involved in the region of southern Pará. The second species is particularly instructive in lacking a conical receptacle, a feature characteristic of all members of the genus *Ageratum*. The pair of species also differs from *Ageratum* in the broad blunt rather than lanceolate involucre bracts and the small symmetrical carpodia with small, quadrate, thick-walled cells. The Piquarian nature of the involucre bracts was noted by the original authors (Barroso & King, 1971). The two species of the new genus also have a dense pubescence on the basal tube of the corolla, the lack of any apical shield of thicker-walled cells on the outer surface of the corolla lobes, and a tendency for sclerids along the veins and in the lobes of the corolla. In addition to the carpodial structure, the two species share an area above the carpodium of small, somewhat colored, thinner-walled cells that appear expanded in one achene. These are possibly elaiosomal in nature. Such a structure is not seen in *Ageratum*. In the one species where they are available, the leaves of the new genus show a shallow lobing and abrupt acuminate tip unlike anything seen in *Ageratum*.

The new genus is named after Paulo Cavalcante, the collector of the type species and the collector of members of two other endemic Eupatorian genera from the Serra dos Carajás area of southern Pará.

CAVALCANTIA R. M. King & H. Robinson, gen. nov. Asteracearum (Eupatorieae).

Plantae herbaceae annuae vel breviter perennes erectae. Folia inferne opposita superne alterna anguste petiolata; laminae ovatae vel deltoideae distincte leniter lobatae abrupte acuminatae subtus glandulo-punctatae fere ad basem trinervatae. Inflorescentiae cymosae vel in glomerulis aggregatae. Capitula minuta; squamae involucri eximbricatae oblongae apice late rotundatae; receptacula plana vel conica glabra epaleacea. Flores 6-30 in capitulo disciformes; corollae albae 5-lobatae, tubis base latis dense pubescentibus superne constrictis: faucibus campanulatis glabris vel subglabris, cellulis elongatis in parietibus sinuosis, lobis intus papillosis extus leniter mamillosis sparse glanduliferis vel unisetiferis interne interdum scleroideis; filamenta inferne brevis replicata, cellulis collis oblongis in parietibus distincte annulate ornatis; thecae elongatae, appendices antherarum ovatae; basi stylorum glabri non noduliferi, rami stylorum filiformes dense papilloosi. Achaenia prismatica 5-costata glabra, cellulis supra-basilaribus minutis subtenuibus; carpopodia minuta annuliformia, cellulis minutis subquadratis ca. 3-4-seriatis in parietibus incrassatis; pappus nullus. Grana pollinis in diametro ca. 18 μ m.

Type species: *Ageratum glomeratum* Barroso & King

The genus contains the following two species.

1. Heads aggregated into glomerules, sessile or subsessile, subtended by short, broad bracts; most nodes of inflorescence with small foliose bracts; heads with 25-30 flowers; receptacle conical; hairs on base of corolla uniseriate, non-glandular *C. glomerata*
1. Heads in short rather racemose clusters, with short pedicels, without subtending bracts; without or with small linear bracts at nodes of inflorescence; heads with ca. 6 flowers; receptacle flat; hairs on base of corolla biseriate, glandular *C. peracymosa*

CAVALCANTIA GLOMERATA (Barroso & King) R.M.King & H.Robinson, comb. nov. *Ageratum glomeratum* G.M.Barroso & R.M.King, Brittonia 23: 121. 1971.

CAVALCANTIA PERCYMOSA R.M.King & H.Robinson, sp. nov.

Plantae ca. 0.5 m altae superne ramosae. Caules fulvescentes teretes striati puberuli et sparse glandulo-punctatae. Folia inferne opposita, petiolis angustis; laminae ignota. Inflorescentiae laxae valde cymosae in ramis penultimis dense subracemosae in ramis ultimis ca. 1 mm longis, bracteis nullis vel linearibus. Capitula anguste campanulata ca. 3 mm longa et 1.5 mm lata; squamae subinvolucrales nullae; squamae involucri ca. 8 eximbricatae 1-2-seriatae subaequales anguste obovatae ca. 2.5 mm longae et 1 mm latae apice late rotundatae margin superne et

apice dense puberulo-fimbriatae extus superne puberulae; receptacula plana. Flores ca. 6 in capitulo; corollae ca. 1.5 mm longae, tubis ca. 0.4 mm longis base valde latioribus pilosis, pilis biseriatis glanduliferis; faucibus anguste campanulatis ca. 0.8 mm longis extus sparse glandulo-punctatis, lobis triangularibus ca. 0.35 mm longis et latis extus sparse glandulo-punctatis; filamenta in parte superiore ca. 0.10-0.14 mm longa inferne ca. 0.08 mm lata; thecae ca. 0.6 mm longae; appendices antherarum late rotundatae ca. 0.11 mm longae et 0.16 mm latae. Achaenia ca. 1.7 mm longa glabra; carpopodia ca. 0.05 mm longa et 0.15 mm lata, cellulis plerumque 10-15 μ m longis et latis.

TYPE: BRASIL: Pará: Sul do Estado, Serra do Cachimbo. VI-1955. *Moacir Alvarenga* Herb. No. 90537 (Holotype, RB; isotype, US).

The two species of *Cavalcantia* are close in the generic sense, but they differ in many significant details at the species level. The new species has a flat rather than conical receptacle, perhaps partially the result of the comparatively few flowers in the head. The hairs on the bases of the corollas are biseriate and gland-tipped rather than uniseriate and non-glandular. The involucre has no broad subtending bract and the nodes of the inflorescence have either no bracts or small linear bracts rather than petiolate foliose bracts as in *C. glomerata*. The elongate bare internodes of the inflorescence are evident in both species, but the branching of the new species is divaricately cymose and its capitular organization more subracemose, while that of *C. glomerata* has more erect branching with extremely dense glomerules. The branches at the lower nodes of the new species have a very short basal internode followed by an immediate branching which gives the initial impression of a verticil of four branches. Such branching is present at only the lower of the two nodes showing opposite branching. Such branching is not present in material seen of *C. glomerata*.

Literature Cited

- Barroso, G. M. and R. M. King 1971. New taxa of Compositae (Eupatorieae) from Brazil. *Brittonia* 23 (2): 118-121.
- King, R. M. and H. Robinson 1980. Studies in the Eupatorieae (Asteraceae). CXCI. A new genus *Parapiqueria*. *Phytologia* 47: 110-112.



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Cavalcantia percyymosa R. M. King & H. Robinson, with enlargement of heads, isotype, United States National Herbarium. Photos by Victor E. Krantz, Staff Photographer, National Museum of Natural History.